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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,292	11/13/2003	James D. Osterloh	14542	2131

7590 04/04/2005

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EXAMINER	
ZACHARIA, RAMSEY E	
ART UNIT	**PAPER NUMBER**
1773	

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/714,292	OSTERLOH, JAMES D.	
	Examiner	Art Unit	
	Ramsey Zacharia	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-23 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-23 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 22 April 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification is objected to because of the following informalities:

a. it contains the heading "DRAWINGS" on page 4 instead of the required heading "Brief Description of the Drawings",

b. the polymer in the last entry of the Table on page 6 is incorrectly labeled as HALAR® ECTFE (HALAR® ECTFE is a copolymer of ethylene and chorotrifluoroethylene, the polymer of the last entry is a homopolymer of chlorotrifluoroethylene).

The applicant is requested to review the application thoroughly and make all appropriate corrections.

Claim Objections

2. Claim 6 is objected to because of the following informalities: the formula on line 2 of the claim contains an extra CH_2 unit, i.e. $[-CF_2 - CF_2 - CH_2 - CH_2 - CH_2]_n$ instead of $[-CF_2 - CF_2 - CH_2 - CH_2 -]_n$.

3. Claim 10 is objected to because of the following informalities: the formula on line 2 of the claim is missing a right bracket. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-12 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Araki et al. (U.S. Patent 6,716,497) as evidenced by the MatWeb Material Data Sheet for ETFE.

Araki et al. teach a transparent, scattering-preventing composite for use as windows and the like (column 1, lines 6-20). In one embodiment, the composite comprises a fluorine-containing primer layer applied to a substrate and a top layer over the primer of a fluorine-containing polymer having no functional groups (column 13, lines 30-43). The fluorine-containing polymer having no functional groups may be PFA, FEP, or ETFE (column 14, lines 7-9). According to the Table on page 6 of the instant application, PFA corresponds to the material of claims 11 and 12, FEP corresponds to the material of claims 9 and 10, and ETFE

corresponds to the material of claims 5-8. The substrate may be a synthetic polymer, such as polycarbonate (column 17, lines 33-35).

Regarding claims 7 and 8, ETFE is taken to inherently have the appropriate n value since it has a density of 1.7 to 1.72 g/cc and a tensile strength of 5800 to 6820 psi (see the attached MatWeb Material Data Sheet for ETFE).

Regarding claim 17, all polymers, including polycarbonate, are taken to be flexible since the claim does not require any specific modulus or degree of flexibility.

6. Claims 1 and 3-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Friedman et al. (U.S. Patent 2003/0162028) as evidenced by the MatWeb Material Data Sheet for ETFE.

Friedman et al. teach a safety glazing laminate comprising a high modulus layer and a fluoropolymer layer (paragraph 0001). The high modulus layer may be polycarbonate (paragraph 0016). The fluoropolymer layer may be FEP, PFA, ETFE, ECTFE, or PCTFE (paragraph 0059).

Regarding claims 7 and 8, ETFE is taken to inherently have the appropriate n value since it has a density of 1.7 to 1.72 g/cc and a tensile strength of 5800 to 6820 psi (see the attached MatWeb Material Data Sheet for ETFE).

Regarding claim 17, all polymers, including polycarbonate, are taken to be flexible since the claim does not require any specific modulus or degree of flexibility.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delnay et al. (U.S. Patent 3,410,619) in view of Araki et al. (U.S. Patent 6,716,497).

Delnay et al. is directed to a glovebox, i.e. a chemical laboratory reaction enclosure (column 1, lines12-19). The glovebox comprises windows made from any high strength, transparent, chemically inert material, such as safety glass (column 4, lines 20-27).

Delnay et al. do not teach the composition of the safety glass.

Araki et al. teach a transparent, scattering-preventing composite for use as windows and the like, i.e. safety glass (column 1, lines 6-20). In one embodiment, the composite comprises a fluorine-containing primer layer applied to a substrate and a top layer over the primer of a fluorine-containing polymer having no functional groups (column 13, lines 30-43). The composite also has excellent heat and chemical resistance (column 14, lines 2-6). The fluorine-containing polymer having no functional groups may be PFA, FEP, or ETFE (column 14, lines 7-9). According to the Table on page 6 of the instant application, PFA corresponds to the material of claims 11 and 12, FEP corresponds to the material of claims 9 and 10, and ETFE corresponds to the material of claims 5-8. The substrate may be a synthetic polymer, such as polycarbonate (column 17, lines 33-35).

One skilled in the art would be motivated to use the composite of Araki et al. as the window in the glovebox of Delnay et al. because, in addition to being safety glass, the composite has excellent heat and chemical resistance. Thus the use of this composite would improve the overall heat and chemical resistance of the glovebox.

Regarding claims 22 and 23, ETFE is taken to inherently have the appropriate n value since it has a density of 1.7 to 1.72 g/cc and a tensile strength of 5800 to 6820 psi (see the attached MatWeb Material Data Sheet for ETFE).

9. Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delnay et al. (U.S. Patent 3,410,619) in view of Friedman et al. (U.S. Patent 2003/0162028).

Delnay et al. is directed to a glovebox, i.e. a chemical laboratory reaction enclosure (column 1, lines12-19). The glovebox comprises windows made from any high strength, transparent, chemically inert material, such as safety glass (column 4, lines 20-27).

Delnay et al. do not teach the composition of the safety glass.

Friedman et al. teach a safety glazing laminate comprising a high modulus layer and a fluoropolymer layer (paragraph 0001). The high modulus layer may be polycarbonate (paragraph 0016). The fluoropolymer layer may be FEP, PFA, ETFE, ECTFE, or PCTFE (paragraph 0059). The laminate is formed without an adhesive, thus reducing its flammability (paragraph 0011).

Regarding claims 22 and 23, ETFE is taken to inherently have the appropriate n value since it has a density of 1.7 to 1.72 g/cc and a tensile strength of 5800 to 6820 psi (see the attached MatWeb Material Data Sheet for ETFE).

One skilled in the art would be motivated to use the laminate of Friedman et al. as the window in the glovebox of Delnay et al. because the laminate has reduced flammability, a property desired by Delnay et al. (see column 1, lines 12-17 and column 7, lines 38-46).

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (571) 272-1518. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached at (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramsey Zacharia
Primary Examiner
Tech Center 1700